Listing of claims:

Claims 1-11 (canceled)

Claim 12 (currently amended): A broadcast transmitter, comprising:

an input-output controller coupled to a wireless satellite input interface and coupled to a buffer memory;

a control processor coupled to said input-output controller and coupled to a ~~wireless~~ local input interface;

a precision time base coupled to said control processor;

an encoding engine coupled to said input-output controller, said control processor, and to a first memory; <u>wherein the encoding engine:</u>

<u>encodes a plurality of extracted data packets into a first portion of encoded data streams for transmission at a first latency and a second portion of encoded data streams for transmission at a second latency, wherein the second latency is lower than the first latency; and</u>

<u>interleaves the first and second portions of encoded data streams over a broadcast frame that includes sub frames, wherein: each sub frame includes data associated with the first portion and data associated with the second portion, interleaved together, and each of the extracted data packets associated with the first portion is interleaved across multiple subframes;</u> and

a subcarrier signal generator, coupled to said encoding engine, said control processor, a second memory, and to a subcarrier output, wherein the subcarrier signal generator is configured to transmit a signal in response to a message scheduled to a mobile device.

Claim 13 (previously presented): The broadcast transmitter in claim 12, wherein the control processor includes at least one of a microprocessor, microcontroller, programmable logic array, programmable gate array, and an ASIC.

Claim 14 (previously presented): The broadcast transmitter in claim 12, wherein the input-output controller comprises a field-programmable gate array.

Claim 15 (previously presented): The broadcast transmitter in claim 12, wherein the wireless satellite input interface further comprises at least one of an RS-422 interface, an RS-232 interface, an IEEE-1394 interface, a USB interface, or an Ethernet interface.

Claim 16 (previously presented): The broadcast transmitter in claim 12, wherein the wireless local input interface further comprises at least one of an RS-232 interface an RS-422 interface, an RS-232 interface, an IEEE-1394 interface, a USB interface, or an Ethernet interface.

Claim 17 (previously presented): The broadcast transmitter in claim 12, wherein the precision time base is comprised of a 1-ppm oscillator.

Claim 18 (previously presented): The broadcast transmitter in claim 12, wherein the subcarrier signal generator is further comprised of a modulator, a digital-analog converter, and an output filter.

Claim 19 (previously presented): The broadcast transmitter in claim 18, wherein the modulator is further comprised of a field-programmable gate array.

Claims 20-43 (canceled)

Claim 44 (currently amended): A broadcast transmitter that is arranged to broadcast data to a mobile device that is configured to receive data in a broadcast mode and a localcast mode, comprising:

means for receiving formatted data from a wireless satellite data source and a ~~wireless~~ local data source coupled together through an input-output controller that is coupled to a processor;

means for encoding the formatted data to generated encoded data for transmission;

means for converting the encoded data to FM subcarrier baseband signals; <u>wherein the encoding engine:</u>

encodes a plurality of extracted data packets into a first portion of encoded data streams for transmission at a first latency and a second portion of encoded data streams for transmission at a second latency, wherein the second latency is lower than the first latency; and

interleaves the first and second portions of encoded data streams over a broadcast frame that includes sub frames, wherein: each sub frame includes data associated with the first portion and data associated with the second portion, interleaved together, and each of the extracted data packets associated with the first portion is interleaved across multiple subframes; and

means for transmitting the FM subcarrier baseband signals to the mobile device in accordance with a predetermined schedule, such that the mobile device receives, at an antenna configured to be tuned in response to the predetermined scheduled, the FM subcarrier baseband signals when in the broadcast mode.

Claim 45 (previously presented): The broadcast transmitter in claim 44, wherein the means for receiving formatted data is further arranged to receive the data utilizing a High-Level Data Link Control protocol.

Claim 46 (previously presented): The broadcast transmitter in claim 45, wherein the High-Level Data Link Control protocol is to create an address field corresponding to the formatted data, such that wildcard values inserted into the address field allow fewer channels to handle multiple broadcast transmitters.

Claim 47 (previously presented): The broadcast transmitter in claim 44, wherein the encoded data corresponds to an output image resulting from the means for encoding hashing and placing packets within a frame received as the formatted data.

Claim 48 (previously presented): The broadcast transmitter in claim 44, wherein the means for encoding the formatted data is further arranged to split the formatted data into a first stream and a second stream, interleave bits from the first stream with bits from the second stream into separate segments, and merge the segments in producing the encoded data.

Claim 49 (previously presented): The broadcast transmitter in claim 48, wherein the means for encoding the formatted data is further arranged to divide the merged segments into

predetermined segments wherein in each segment corresponds to a predetermined number of symbols, such that the encoded data is produced.

Claim 50 (currently amended): A broadcast transmitter that is arranged to broadcast data to a mobile device that is configured to receive data in a broadcast mode and a localcast mode, comprising:

an input-output controller that is coupled to a wireless satellite input interface and coupled to a buffer memory, wherein the input-output controller is arranged to receive formatted data from a data source through the first input interface and store the formatted data in the buffer memory;

a control processor that is coupled to the input-output controller and coupled to a ~~wireless~~ local input interface, wherein the control processor is arranged to receive commands from the data source through the second input interface and adjust performance according to the received commands;

an encoding engine that is coupled to the input-output controller and the control processor, wherein the encoding:

encodes a plurality of extracted data packets into a first portion of encoded data streams for transmission at a first latency and a second portion of encoded data streams for transmission at a second latency, wherein the second latency is lower than the first latency; and

interleaves the first and second portions of encoded data streams over a broadcast frame that includes sub frames, wherein: each sub frame includes data associated with the first portion and data associated with the second portion, interleaved together, and each of the extracted data packets associated with the first portion is interleaved across multiple subframes ~~engine is arranged to hash and process the formatted data through encoding and time-diversity stages~~ such that an output image is produced; and

a subcarrier signal generator that is coupled to the encoding engine and the control processor, wherein the subcarrier signal generator modulates, filters, and amplifies the output image to produce an FM subcarrier baseband signal that is received by the mobile device receives.

Claim 51 (previously presented): The broadcast transmitter in claim 50, wherein the input-output controller is further arranged to receive the formatted data utilizing a High-Level Data Link Control protocol.

Claim 52 (previously presented): The broadcast transmitter in claim 50, wherein the encoding engine is further arranged to split the formatted data into a first stream and a second stream, interleave bits from the first stream with bits from the second stream into separate segments, and merge the segments in producing the encoded data.

Claim 53 (previously presented): The broadcast transmitter in claim 52, wherein the encoding engine is further arranged to divide the merged segments into predetermined segments wherein in each segment corresponds to a predetermined number of symbols, such that the output image is produced.

Claim 54 (previously presented): The broadcast transmitter in claim 50, wherein the subcarrier signal generator is further arranged to modulate data corresponding to the output image symbol by symbol under transmit clock timing.

Claim 55 (previously presented): The broadcast transmitter in claim 50, wherein the wherein the subcarrier signal generator is further arranged to modulate data corresponding to the output image utilizing quadrature phase shift keying.